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10/552,202	03/06/2006	Dave Pinchin	HAMSO31.001APC	6305

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EXAMINER

ALLEN, CAMERON J

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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06/24/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/552,202	Applicant(s) PINCHIN, DAVE	
	Examiner CAMERON J. ALLEN	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/09/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Beal US 2003/0069142 A1.

Regarding claim 1, Beal discloses a method for treatment of untreated injection water for an injection well, said method comprising the following steps:

- providing the at least one receptacle with at least one type of water soluble solid-state chemical; (sleeve 34)
- bringing the water into contact with the at least one solid-state chemical, causing it to gradually dissolve and mix with the water; and (0012)
- leading treated water into an injection stream to the injection well and into an associated reservoir. (0012)

Regarding claim 2, Beal discloses the method according to claim 1, comprising providing the at least one receptacle with at least one solid-state unit of the at least one chemical. (sleeve 34 and chemical 32)

Regarding claim 3, Beal discloses the method according to claim 2, comprising

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providing the at least one receptacle with at least one solid-state chemical unit having at least one of the following forms: block, tablet, pill, granule and pellet (sleeve 34 and chemical 32)(0012)

Regarding claim 4, Beal discloses the method according to claim 1,2 or 3, comprising providing the at least one receptacle with at least one of the following types of solid- state chemicals:

- Chlorine - poly-electrolytes; - iron chloride; - oxygen scavenger; - corrosion inhibitor;
- scale inhibitor; or - biocide. (0002 KMnO_4 is a scavenger)

Regarding claims 5 and 6, Beal discloses the method according to claim 1, but does not explicitly teach the arranging one or more receptacles as replaceable receptacles and further as replaceable cassettes, cartridges or inserts. However, the Examiner interprets sleeve 37 to be an insert and be replaceable and refillable.

Regarding claim 7, Beal discloses the method according to claim 1, comprising arranging one or more receptacles for continuous flow of the water across and past the at least one chemical therein. (Sleeve 34)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beal US 2003/0069142 in further view of Soriano US 3,727,760

Regarding claim 8, Beal discloses the method according to claim 1, but does not disclose arranging one or more receptacles for periodical shock-dosing of the at least one chemical therein. The Soriano reference does disclose adjustable dosing for increased dosage. (Column 4 line 49-51) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Beal reference with the Soriano reference, since it would yield the added benefit of adjustable dosing.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beal US 2003/0069142 in further view of Tipton US 5,208,461

Regarding claim 9, Beal discloses the method according to claim 1, comprising also connecting the apparatus, via said network of lines and associated valves to at least one UV-sterilization receptacle in which at least one UV-lamp is placed for bactericidal action in water flowing there through. The Tipton reference does disclose the use of ultra violet to disinfect water. (Abstract) It would have been obvious to one of

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ordinary skill in the art at the time of the invention to modify the Beal reference with the Tipton reference, since it would yield the added benefit of increased water treatment.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beal US 2003/0069142 in further view of Serna US 4,986,902.

Regarding claim 10, Beal discloses the method according to claim 1 or 9, but does not disclose also connecting to the apparatus, via said network of lines and associated valves, at least one electro-chlorination receptacle in which a high-voltage cell is placed for inhibiting organism growth in water flowing there through, inasmuch as electro-chlorination may be carried out with or without copper-ion dosing. The Serna reference does disclose an electro-chlorination device with a system of lines and valves that produces chlorination for use in treating water such as sea water. (Figure 1 Column 1 lines 12-28 and Column 2 lines 3-13) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Beal reference with the Serna reference, since using multiple known treatment methods would yield the added benefit and expected result of increased water treatment.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beal US 2003/0069142.

Regarding claim 11, Beal discloses the method according to claim 1, but does not disclose comprising arranging the apparatus removably on a foundation on a water bed in proximity of the subsea well. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Beal reference by making the apparatus removable since it has been held that making an old device movable without

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producing new or unexpected results involves only routine skill in the art. MPEP

2144.04 It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Beal method by locating the device proximate the subsea well, since it is within the ordinary skill of one in the art to locate the device where it is needed.

Claims 12-19 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen US 6,196,314 in further view of Soriano US 3,727,760.

Regarding claims 12, 13 and 14, the Chen reference disclose a system capable of treating untreated injection water for a subsea injection well. (Column 2 line 2-35) The system includes a chemical control module 136, chemicals 104, conduit or lines 118, injection well 110, pump 131, but does not disclose the use of a valve or solid chemicals or the location of the pump being underwater. One of ordinary skill in the art at the time of the invention would recognize that the control system 210 Column 5 lines 25-35 contains the appropriate valve system to control the flow. The Soriano reference discloses the use of solid chemical. The Soriano reference does disclose the use of solid chemical particulate in a hopper for use in water treatment. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Chen reference with the Soriano reference by using the solid chemicals and dispenser, since it is within the ordinary skill of one in the art to change one type of chemical dispenser with another type to serve its intended use. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the location of the pump in the Chen reference, since it is within the ordinary skill of one in the art to relocate parts.

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MPEP 2144.04

Regarding claims 15 and 18, the Chen in view of Soriano reference discloses the apparatus according to claim 12, 13 or 14, wherein the solid-state chemical is at least one of the following types of chemicals: - Chlorine; - poly-electrolytes; - iron chloride; - oxygen scavenger; - corrosion inhibitor; - scale inhibitor; or - biocide. (Soriano Column 6 lines 66 and 67 and column 7 line 1) arranged for continuous use. (hopper 37 figure 3 Soriano)

Regarding claims 16 and 17, the Chen in view of Soriano reference discloses apparatus according to claim 12, wherein one or more receptacles are replaceable. (Soriano Hopper 37 figure 3) The Examiner interprets the hopper to be an insert and be replaceable.

Regarding claim 19, the Chen in view of Soriano reference discloses the apparatus according to claim 12, wherein one or more receptacles are arranged for periodical shock-dosing of the at least one chemical therein. The Soriano reference does disclose adjustable dosing for increased dosage. (Column 4 line 49-51)

Regarding claim 22, the Chen in view of Soriano reference disclose the apparatus according to claim 12, but does not disclose that the apparatus is removably connected to a foundation on a water bed in proximity of the subsea well. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Chen in view of Soriano reference by making the apparatus removable since it has been held that making an old device movable without producing new or unexpected results involves only routine skill in the art. MPEP 2144.04 It would have been obvious

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to one of ordinary skill in the art at the time of the invention to modify the Chen in view of Soriano method by locating the device proximate the subsea well, since it is within the ordinary skill of one in the art to locate the device where it is needed.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen US 6,196,314 in view of Soriano US 3,727,760 in further view of Tipton US 5,208,461.

Regarding claim 20, the Chen in view Soriano disclose the apparatus according to claim 12, wherein characterized in that the apparatus also is connected, via said network of lines and associated valves, to at least one UV-sterilization receptacle-in which at least one UV-lamp is placed for bactericidal action in water flowing there through. The Tipton reference does disclose the use of ultra violet to disinfect water. (Abstract) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Chen in view Soriano reference with the Tipton reference, since it would yield the added benefit of increased water treatment.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen US 6,196,314 in view of Soriano US 3,727,760 in further view of Serna US 4,986,902

Regarding claim 21, the Chen in view Soriano disclose the apparatus according to claim 12 or 20, wherein the apparatus also is connected, via said network of lines and associated valves, to at least one electro-chlorination receptacle in which a high-voltage cell is placed for inhibiting organism growth in water flowing there through, inasmuch as electro- chlorination may be carried out with or without copper-ion dosing. The Serna reference does disclose an electro-chlorination device with a system of lines and valves that produces chlorination for use in treating water such as sea water.(Figure 1 Column

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1 lines 12-28 and Column 2 lines 3-13) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Chen in view Soriano reference with the Serna reference, since using multiple known treatment methods would yield the added benefit and expected result of increased water treatment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAMERON J. ALLEN whose telephone number is (571)270-3164. The examiner can normally be reached on M-Th 9-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CJA

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797